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"Where There Is No Vision . . . ."

By E. S. Moorhead, M.B., Ch.B. (Dublin)

There appears to be the same feeling of optimism about the post-war period amongst doctors as there is among that section of the public which includes many prominent and voluble citizens in the political field. Child birth is rarely easy, and the transition from war to peace footing will be neither smooth nor painless.

Our livelihood, our activities, our comings and goings are now largely controlled by a paternal government; presently we shall find that once more we are free and independent, but very much dependent for our welfare, not on governments, but on our own exertions. Probably the majority of Canadians have an uneasy feeling that the freedoms may not be so well founded, and that insecurity and instability are more than nightmares, and may become as real and as dreadful as the economic depression from which we have only too recently emerged.

Many earnest and hard working citizens are devising ways and means to soften the impact of post-war confusion and uncertainty, and to try to obtain some measure at least of security. What is the medical profession doing? Apparently waiting for the government to set up a national health insurance plan. It is an optimist who would suggest that the hundreds of millions necessary to finance such a plan can be spared for health at a time when every dollar is needed to protect our lives. Where are those millions to come from immediately after the war? Time alone is going to answer that question, and an election will probably produce a crop of fairy tales and promises on that subject.

If stability and security is the goal, then the medical profession should be able to help to provide at least a portion of it. Debt when incurred voluntarily is not to be dreaded, but when thrust upon you suddenly by illness it becomes a fearsome thing. Doctors like many others are enjoying good times; there are fewer doctors, lots of work to be done, and money is more plentiful than it has been for a long time. Is that the reason for our apathy towards the community's welfare? The public is told that it is never refused medical care. Yes, but free men and women dislike being driven to accept charity, for that is what it is.

Two years ago the hopes of many citizens, including the 110,000 participants in the Manitoba Hospital Service Association, were raised by the announcement that the doctors were preparing, and in co-operation with members of the public would offer a medical pre-payment plan; now for all the public knows the doctors have forgotten all about it.

Much time was consumed to make the plan legally water-tight as far as the profession was concerned and whatever co-operation took place was mainly after a cut and dried plan had been drawn up. The majority of the board must be doctors. Will the public think that is a fair division of responsibility? In the board of the Manitoba Hospital Service Association consisting of twenty-one members, there are only four representatives of the hospitals; yet the hospitals appear to think that they get fair treatment from a board mainly composed of members of many different groups. Apparently the doctors do not think that they would be equally well treated. The Medical Relief plan which was started in 1934 had equal representation in purely medical affairs from the city and doctors. The Fire Fighters Medical Service, now in its fourth year was drawn up in free discussion between the Fire Fighters' Committee and the doctors. There is equal representation of both groups on all committees except one which is concerned with technical matters, and one member of the Fire Fighters' Committee always sits on that. One result was that when the dues in the first year were found to be insufficient, it was the Fire Fighters who proposed that they should be raised. If all this proves anything, it should demonstrate that the public can be trusted to deal fairly with the doctors; but if the doctors insist on a majority control, the public will be inclined to doubt their good faith. Trust in the doctors by the public may prove to be very necessary, if as now appears likely the first estimates of the cost turn out to be incorrect, and may have to be revised upwards.

It is rumoured that another cause for delay is the inability to find a whole time medical director. Very good, then put in an executive secretary; there must be available some with general business training, even if they do not hold a medical degree; part time medical assistance could probably be obtained until such time as the plan can no longer be carried on in that way. A study will show that several medical plans in the U. S. A. have done that; why should not we?

Many commercial sickness and accident companies function successfully without whole time medical assistance in every area in which they operate.

Much the most important thing at this time is to find out whether the public approves of the plan or not, and so far they have been given no opportunity to express their views. It might be of assistance to hear what they have to say.

There are two alternatives before the profession today. To show a capacity for leadership is the first. We have been told for years by the public what is really needed; it has been driven into us by the press, in magazine articles, and over the radio. The only response we make is to tell the public of our new and wonderful discoveries for curing or relieving their disabilities. "Yes," says the public "but you forget to mention that in many cases the cost of these is prohibitive for the man of average means; we neither wish to be pauperized, nor to be compelled to accept charity." The public wants fair dealing, not charity.

The other alternative is to confess by negation that we are incapable of acting constructively, thus permitting it to go to the government by default. So far things have been very favourable for us. We have been wooed by the government representatives who are anxious to tell the people that the government and the doctors are in complete agreement. We have yet to hear the real voice of the people expressed through its members in parliament, and those who lay down our laws are not always soft spoken to minorities. The people know as well as we do that we cannot use the weapon of the strike, and that we are not as fully organised as we would like the country to believe. Lloyd George threatened, and it was not an empty threat, that he would force his Health Insurance bill through in the teeth of the medical opposition, and would engage salaried doctors

to implement his plan. They would have been civil servants, and that would have been the beginning of State Medicine. We have in Canada politicians who are as astute as Mr. Lloyd George.

In conclusion I am going to submit a series of questions to the readers of this article; as it is not a questionnaire the answers will be recorded not on paper but by your future attitude.

(1) Do you think that we shall return to pre-war conditions after peace is declared, and that those who prophesy an economic upheaval are entirely wrong?

(2) Do you think that if such an upheaval, involving agriculture, industry and labour should take place, the medical profession will continue to function as it has always done?

(3) Do you come to a meeting prepared to offer something constructive, and to submerge your personal views for the welfare of the medical profession and your community?

(4) Or do you come in a selfish and critical mood prepared only to defend your own interests and antagonistic to any suggestion that might appear to give an advantage to another medical group?

(5) Do you think that any representative group from your own profession can possibly set up a medical service unless it has your loyal and whole hearted support?

To the medical profession I would say that while times are good, prepare for the difficulties that we may have to face. Where there is no vision, the people perish.

Acute Cholecystitis

Indications for Operation

By S. S. Peikoff, M.D.

In reviewing the literature on Acute Cholecystitis I find that there have been a considerable number of papers published in the past ten years on the surgical management of the Acute Gall Bladder. All surgeons agree that the Acute Gall Bladder (which must not be confused with gall bladder colic) is a surgical problem, but they are definitely in discord as to the actual timing of the operation: whether operation should be performed immediately or when the acute attack has subsided. To begin with, it has been definitely established that medical treatment has no place in acute cholecystitis. Once a gall bladder has become diseased it cannot be restored to normal. Furthermore, it has been shown that medical treatment is associated with a very high mortality and very unsatisfactory results.

(a) McKenty collected reports of medical treatment in local hospitals on 401 cases: 69 did not improve; 24 became rapidly worse; 16 died, i.e., 109 out of 401 cases, i.e., 27% failed to improve on a medical regime.

(b) Zinniger and Taylor published independent reports showing 37% failures following medical treatment.

Before attempting to discuss the pros and cons of any surgical procedure one must be thoroughly conversant with the underlying pathology, and only on that basis can surgical attack be rationalized.

The late Dr. James McKenty published several articles on the subject. He has, I believe, the best classification for practical purposes. He divides the condition into: 1. Uncomplicated Stage. 2. Stage of Complications.

The Uncomplicated Stage

It has been shown both at operation and at autopsy that Acute Cholecystitis is not a primary disease, but is usually super-imposed on a chronic cholecystitis. This is evidenced by the fact that stones are present in 95% to 98% of cases and the advanced age of the patient. The mechanism is as follows: A stone becomes impacted in Hartman's pouch or the cystic duct; obstructs the outflow or inflow of bile which is itself bactericidal. The bile becomes absorbed and at the same time the gall bladder becomes filled by exudation, the result of an inflammatory reaction, and transudation, the result of compression of the mucosal veins and capillaries by contraction of unstriated muscles (Denton). The stone obstructs the lymphatics and veins draining the gall bladder wall, so that it soon becomes thick and oedematous. As the distension increases, the vessels become further obstructed, leading to thrombosis with resulting gangrene at the fundus. These two features of distention of the Gall Bladder and edema of the wall are the two most constantly found in early Acute Cholecystitis.

One must realise that in this stage it is purely and simply a mechanical process and not a case of infection. This has been definitely established in large clinics by men such as Drenan of Mayo Clinic, and Wilkie of Edinburgh, who showed that the culture both of the contents and of the wall of the Gall Bladder is sterile in 80% of cases of Acute Cholecystitis.

Sooner or later, usually before a period of five days, depending on the completeness of the obstruction and the previous condition of the Gall Bladder, its friable and devitalized wall becomes invaded with micro-organisms: B. Coli—25%, Staph. and Strep.—11%, B typhosis aerogenes, etc. The condition has now entered the stage of complication. We must remember that we cannot set a definite time limit on the two stages, since the progress of pathological changes varies with each individual case. One may be gangrenous in 24 hours. Another may not become so for five to six days. On the whole, the average time before empyaema or gangrene sets in is about 5 to six days from the onset of the attack, bearing in mind that each case must be assessed on its own merits.

Stage of Complications

When the Gall Bladder becomes invaded with organisms, a variety of events follow:

Suppuration of Gall Bladder contents.

Gangrene—Local or general.

Perforation, with resulting: Local pericystic abscess, subphrenic abscess, intestinal fistula and general peritonitis.

Resolution—If condition subsides, the best you can hope for is: Hydrops, Empyaema or Adhesions—the Gall Bladder becoming walled off with omentum and adjacent organs.

Jaundice—present in 10% to 15% of cases is due to either: Pressure of enlarged Cystic Gland on common Bile Duct; Oedema from Gall Bladder extending to Common Bile Duct; or a concomitant stone in Common Bile Duct in very small percentage of cases.

Clinically, the diagnosis of such cases is usually quite simple. Every attack of Acute Cholecystitis begins with a biliary colic type of pain, but it is

different in that it is more or less continuous. If the pain lasts more than 12 to 24 hours, and especially if it is not relieved by a sedative, then one should suspect inflammation. Within that time there is a slight rise of temperature, but sometimes this is absent. There is usually a leucocytosis, 12,000 to 14,000, which may also be absent. Nausea or vomiting is present in 85% of cases. The presence of tenderness and muscular rigidity generally clinches the diagnosis since this is absent in ordinary biliary colic. A mass may form sooner or later and this is definite evidence of a distended Gall Bladder or Pericholecystic inflammation. Jaundice may be present for reasons enumerated above. And since the patient is of middle age, one must always be on the lookout for associated conditions such as Diabetes, Cardiac disease, Hypertension and Nephritis.

Progress

Now as I said before the diagnosis is usually easy. The greatest difficulty lies in attempting to estimate the future course of the disease. Some cases continually get worse, the temperature rises, there is evidence of impending perforation. Here every one agrees that an operation is an emergency procedure. Some few recover spontaneously. But the majority of cases do not run this course. Most of them, on the other hand, appear to improve, the symptoms subside, temperature drops, the leucocyte count becomes normal, there is residual soreness in the right upper quadrant, and the patient appears to have passed the crisis. Then suddenly his condition becomes worse. The temperature rises and there are all the signs of imminent perforation and an entirely changed picture. Experienced Clinicians agree that the greatest difficulty lies in the fact that there are no laboratory findings and no clinical features by which one can foretell with any degree of certainty, which cases are going to get better and which cases will go on to perforation. It is in these apparently subsiding cases that the surgeon finds himself in the horns of a dilemma. Should he operate or should he wait?

The arguments advanced against early intervention are:

1. Operating during the acute stage entails unwarranted risk and that the cholecystectomy is definitely more difficult and hazardous in the early stage than when oedema has subsided.

2. There is danger of spreading infection if operation is done in the acute stage.

3. Exploration of the Common Bile Duct is undesirable during the acute stage, and therefore stones in common Bile Duct may be missed.

4. Perforation is uncommon, one can afford to wait for the attack to subside.

I will now consider these arguments in the light of current literature and my own experience in 19 cases of cholecystectomy for Acute Cholecystitis in the past two and a half years.

1. Within 24 to 48 hours, during the stage of early oedema I have found that the operation is comparatively easy and that the Gall Bladder can be shelled out of its bed along a line of cleavage. There is relatively little bleeding on account of thrombosis. If the patient's condition is precarious a cholecystostomy may be done although it was not done in my series. A. J. Walton originally proposed cholecystectomy for Acute Gall Bladder in 1923, and his sole reason being the ease with which an Acute Gall Bladder can be removed.

2. During the first 3 to 5 days acute Gall Bladder is simply a mechanical process of blocking of a sterile tank; therefore there is no danger of spreading infection; for that reason it cannot be compared to an Appendix which is a cesspool of organisms which tends to perforate early. The Gall Bladder contains sterile bile, has a rich blood supply, and is readily enveloped by omental adhesions as evidenced at operation, and for that reason one can temporize for a few days without running into infection. It has definitely been proved that fulminating streptococcal peritonitis does not occur after cholecystectomy for acute Gall Bladder.

3. Perforation—In the past it has been assumed that perforation is so rare that it is a negligible consideration, but recent statistics of Acute Cholecystitis prove otherwise.

(a) Edwards—194 cases proved by operation—Perforation of Gall Bladder into peritoneal cavity occurred in 21 patients or 11%. Mortality rate of operation 29%.

(b) Heuer—Reviewed 29,000 cases from various hospitals with 20% perforation.

It is a dangerous possibility in Acute Cholecystitis and affords a good reason for early operation.

4. Exploration of Common Bile Duct is rarely necessary in Acute Cholecystitis. Glen—Oct. 1939—S.G.O., Vol. 69, No. 4, has this to say: "The indications for exploration in Acute and Chronic disease of Biliary tract are not identical. If there is marked jaundice or history of recurring attacks of jaundice and if a stone is palpable in duct, then the Common Duct must be explored. The duct is indurated and appears to be distended without harboring a stone. An icterus index of 30 or less is due to inflammatory process in Biliary Tract rather than to obstruction of Duct by a stone. In general it is said that the common Bile Duct should not be explored in Acute Cholecystitis unless definitely indicated." In his series of 219 cases of Acute Cholecystitis it was explored 22 times and stones were found in 9 cases only.

But other factors are also to be considered:

5. Mortality Rate—Best statistics show that in those operating when the attack subsides is 10%, whereas those operating within 24 hours to 48 hours is less than 2%. In my own series of 19 cases there were no deaths.

McKenty—69 cases within 48 hours, 1.4% mortality.

Taylor—A number of cases within four days, 5% mortality.

Zinniger—Within 48 hours, 0 deaths.

Two to five days, 6%.
After five days, 25%.

6. Avert damage to the Biliary System; the longer the pathological process is allowed to continue not only the Gall Bladder suffers (which is of the least importance) but there is also involvement of the associated vital structures; liver damage, possible Cholangitis, Pancreatitis and adhesions to the duodenum.

7. Economic factor is certainly a consideration. The period of hospitalization is definitely reduced.

Brief Review of Cases

Eighteen cases were operated on within six days. Operative findings and pathological picture varied considerably. The majority of cases presented a distended Gall Bladder with thick oedematous walls. Three cases had areas of necrosis and gangrene at the fundus. Three cases were associated with perforation and free bile in the peritoneal cavity. One case done three weeks after onset of attack was a

frank empyema with pericholecystic abscess, with such firm adhesions to adjacent organs that made operating most difficult and was a sharp contrast to early cases. Two cases were jaundiced. Exploration of Common Bile Duct was done and a stone retrieved in one of them. Age of patients ranged from 26 to 73, the average being around 50. Average period in the hospital was 17 days.

Conclusion

In my experience patients suffering from Acute Cholecystitis do best when operated upon early, usually five to six days from the onset of the attack. To delay operation is to invite complications. After five to six days the optimum period has passed. At the beginning Acute Cholecystitis is not an Acute emergency. One can devote 24 to 48 hours to proper investigation of the case, taking special care in the search for associated conditions such as heart, kidneys, Diabetes, etc. These patients are usually quite ill and careful preoperative preparation in the way of correcting dehydration and disturbed metabolism is most important. Of course there are cases in which the rigidity and tenderness are rapidly subsiding and in which a mass was never palpable and which can be treated conservatively; but only in a hospital under the strictest observation. These cases are, however, the exception. Once the surgical status of the patient has been assessed I feel that there is less risk in early operation than in waiting for evidence of gangrene and perforation. One must realize that every case is a law unto itself.

Meningococcal Meningitis

Being the summary of a paper presented before the Winnipeg Medical Society, November 19, 1943

By Dr. Bruce Chown

There has of late been an increase in meningococcal infections in the civil population, particularly in children. The cases so far reported have been severe and in a number of cases overwhelming, the children dying in from nine to thirty-six hours from the beginning of symptoms. This increase in the disease and the severity of infection are widespread over the Continent and not just local phenomena. There is no threat of an epidemic.

Symptoms May Be Grouped Under Three Headings

(a) Non-specific symptoms suggesting "flu," i.e. chills or chilliness, intermittent or moderate headache, nausea or vomiting, aching or pain in the limbs, fever. Pain about joints may, in the adult, suggest acute rheumatism. Some writers lay emphasis on local points of tenderness in muscles.

(b) Skin manifestations, any combination of fleeting rose spots, petechial haemorrhages, larger haemorrhages which may simulate erythema nodosum. Only petechial haemorrhages have been noted in children here, the other lesions being reported in adults.

(c) Meningeal signs, severe headache, vomiting, delirium or stupor, rarely convulsions.

In addition to these we have noted transitory paralysis or paresis simulating poliomyelitis. In small infants the signs and symptoms may scarcely suggest meningeal involvement: irritability or lethargy, pallor, often a questionable fulness of the fontanel, a slight resistance of the neck to flexion, increased knee jerks, fever which may be high or low, refusal of food, and perhaps vomiting, rarely convulsions, never opisthotonus.

Meningococcal infection is an infection of the naso-pharynx. Meningococcal **disease** is primarily a septicaemia. Meningitis may or may not supervene. Treatment is aimed at producing an immediate and continuous level of about 10 mgm. of a sulphonamide per 100 cc. of blood. Given this the sulphonamide level in the cerebro-spinal fluid will be satisfactory. Since the disease may run a very short course the sulphonamide must be introduced directly into the blood stream at first. The sulphonamide of choice is probably sulphadiazine, the sodium salt being used for intravenous or intramuscular injection. If sulphadiazine is not available, sulphapyradine is second choice and sulphathiazole third. Initial intravenous dose is 1 grain per pound of body weight with a maximum of 75 grains (5 grams). For babies and young children we give 2 grains per pound of body weight for the remainder of the first 24 hours, i.e. 3 grains altogether, 1 grain as a loading dose and 2 grains for continued saturation. The drug is given in divided doses every 4 hours the first day. Thereafter the dose is one grain per pound per day. For older children and adults the initial doses is 5 grams, following in 8 and 16 hours by 2.5 grams. This is continued if stupor or nausea and vomiting persist, otherwise 1.5 grams may be given by mouth every four hours till the temperature is normal and then every six hours for a week. Intravenous sulphonamides should not be given in greater strength than 5% because strong solutions cause venous thrombosis.

Fluid intake is almost as important as the specific drug. In the first 24 to 48 hours it is usually best to give it intravenously in the form of 5% glucose in saline. A simple rule for fluid intake is 3 ounces per pound the first year, 2 ounces per pound the second year and one ounce per pound the third and later. The first intravenous dose of sulphonamide should be given rapidly and then followed by a continuous intravenous injection of fluid. Later doses can be given in the glucose-saline solution. Daily record of urinary output must be kept and a daily microscopic examination of the urine for blood done.

In circulatory collapse, — a thin, running pulse, cyanosis, cold skin, low blood pressure, — subcutaneous injection of Connaught Laboratories' adrenal cortical extract, 2 cc. every 2 hours till the circulation improves is worth a trial, though its value cannot be considered proven.

Opiates are frequently required to overcome pain and restlessness. Morphine in full doses seems to be the drug of choice. External stimulation by light and sound and unnecessary examination should be reduced to a minimum.

The above procedures have proved most satisfactory. In large groups of adults so treated in the American Army the general mortality has been 3.3%. In reports from Scotland and from Australia, a mortality rate in children of about 10% is reported. To attain such results the first essential is speed; speed in diagnosis, speed in getting the specific drug into the blood stream in sufficient quantity. Delay in admission to hospital may be fatal; equally, delay in instituting treatment once a patient is admitted may be fatal. There is no more emergent medical disease, unless it be diphtheria. It is recommended that hospitals have emergency trays set up for diagnosis and treatment of this disease. If on lumbar puncture a cloudy fluid is obtained, intravenous sulphonamide should be given at once without waiting for examination of the fluid — the sulphonamides are the first hope in the treatment of purulent

meningitis no matter what the causal organism. If lumbar puncture is going to be delayed and a reasonable diagnosis of acute meningitis has been made, particularly if there is an associated haemorrhagic rash, give the first intravenous dose of sulphonamide without waiting for lumbar puncture. If no organisms are found in a purulent spinal fluid assume that the disease is meningococcal in origin until proved otherwise: once sulphonamides are given it is very difficult to grow meningococci from the blood or spinal fluid.

One last point in diagnosis: the meningococci can frequently be demonstrated in the skin petechiae and a diagnosis so confirmed in a few minutes. Pinch up the skin about the petechia with the petechia at the top of the "pinch." This will stop undue bleeding which might make it more difficult to find the organisms. Then with a cutting needle or the point of a scalpel, scrape out the contents of the petechia, smear on a slide, do a Gram stain, and examine for Gram negative cocci.

Treatment of Contacts

We have recently seen two cases of meningitis in each of two families. All members of a family, in which a case of meningitis occurs, should be considered to be harboring the meningococcus unless proved otherwise. Sulphadiazine or sulphapyradine in the following doses will clear up these silent infections with reasonable certainty:

For an adult — 3 grams the first day, 2 grams the second and third.

For a child — 1 gram daily for 3 days.

As soon as a case is diagnosed, the remainder of the family should have this treatment. While struggling for the life of the sick child, don't forget to protect those still well.

Case Report

Pneumococcal Meningitis Secondary to Fractured Skull Treated with Penicillin

By Dr. P. H. McNulty

Bobby M., a perfectly healthy boy of 8, met with a street accident at 5:30 p.m., Oct. 11, 1943. He was admitted to hospital in a semi-conscious condition, with abrasions of his face and body and a large wound on his right ankle. He was bleeding from the right ear. His pulse rate was 98 and the blood pressure 114 - 60.

The immediate treatment consisted of cleaning the abrasions, painting them with mercurochrome solution, instilling mercurochrome into the ear, suturing the cut ankle tendons, dusting sulphanilamide powder into the wound, giving 1,500 units of tetanus anti-toxin and giving 10% glucose in saline solution intravenously. An X-ray of the skull taken next day showed a fracture in the temporo-parietal region.

On the 13th the temperature rose to 104 and he was started on sulphathiazole—grs. 15 every 4 hours. There was little change in his condition until the 19th, when his neck became very stiff. Lumbar puncture was done. The fluid was under marked pressure, was clear, contained a trace of globulin and 215 cells. Smear showed pus cells and diplococci. There was no growth on culture.

The signs and symptoms pointed to meningitis secondary to the fracture, and the sulphathiazole was replaced by sulphadiazine. This drug was kept at a blood concentration of 7.0 mg. per 100 c.c. On the 23rd the puncture was repeated. The pressure was 290 m.m. of water. There was a trace of globulin, 367 cells and culture showed pneumococci. On the 25th the cells were 551 and on the 26th, 277.

Meanwhile the general condition had remained much the same. The temperature ranged from 102 to 104 with the pulse from 100 to 120. On the 26th the pulse became more rapid and very irregular. His face was pale and drawn. He wandered more than usual and looked blankly when spoken to. He twitched and had tremulous movements of his head. He was incontinent on the 27th. He received a transfusion of 250 c.c. of blood and revived somewhat. Despite all efforts, he continued to grow worse until recovery seemed impossible. Neither the sulphathiazole nor the sulphadiazine had shown any effect. It was, therefore, decided to apply for Penicillin and a supply arrived by air on the morning of the 29th. The boy was then, to all appearances, moribund.

At 9 a.m. the spinal canal was tapped (the fluid showed 530 cells) and 5,000 units of penicillin were injected. His pulse was weak and the face pale, but both pulse and colour improved after the injection. A second injection of 10,000 units was given at 2 p.m. The fluid then showed 2,975 cells. No organisms were found. By evening his face was more expressive and the appearance was brighter. He had more control and tried to speak. The temperature was 102 and the pulse 120. A third puncture was done at 9 p.m. He was then given 10,000 units and an additional 5,000 were given intramuscularly and 5,000 intravenously. The fluid at that time showed 46,650 cells but no organisms.

On the 30th he was looking better. His temperature had not fallen, but his pulse, although rapid, was of good quality. Penicillin was given intravenously in doses of 5,000 units every hour from midnight until 8 a.m. of the 30th and then every 4 hours till 9 p.m. Lumbar puncture was repeated at 11 p.m. and 10,000 units were injected. The fluid was reported as "thick pus."

There was gradual improvement and on Nov. 4th (23 days from commencement of illness) the general condition was so much better that recovery seemed likely. The boy was rational, was taking nourishment well and the temperature and pulse were both below 100.

During the night of November 4th the temperature rose to 104.5 and the pulse to 160. The penicillin had been reduced to 4 doses of 5,000 units. It was now increased to eleven intramuscular doses of 5,000 units and two intrathecal doses of 10,000 units. Three days later, with pulse and temperature declined to 120 and 101 respectively, the general condition did not improve and he died on November 11th, with temperature 107 and an uncountable pulse.

This might be called a failure for penicillin. The fact is the boy would have died much sooner if he had not been given the drug. If penicillin had been given at the start he would likely have survived. The disease had got too good a hold before penicillin was used.

When the brain was examined at post mortem the tissue was soft and the sulci and ventricles were full of thick green pus.

Penicillin is supplied in powder form in ampoules marked in "Oxford Units." When dissolved one c.c. contains 5,000 Oxford units. In cases of meningitis

the drug is given intrathecally, intramuscularly and intravenously. It is recommended to give it intrathecally twice daily, each dose consisting of 10,000 units dissolved in 10 c.c. of saline. Absorption is slow. It has been recovered from the spinal fluid 31.5 hours after administration.

Intramuscularly it is given in 2 c.c. doses (10,000 Oxford units) every four hours. Intravenously—a continuous drip method was established at the rate of 100 c.c. per hour of normal saline, alternating with 5% glucose solution. One c.c. or 5,000 units was injected into the tubing every hour through a hypodermic needle. This treatment was easily established and could be kept up indefinitely. This method was used on two separate occasions for 48 hours each.

Conclusions drawn from this isolated case:

1. There were no unfavourable reactions to the drug.
2. Complete disappearance of organisms from the spinal fluid within 6 hours.
3. Great improvement for a time in a moribund and hopeless case.
4. Both sulphathiazole and sulphadizine were ineffective.

I take this opportunity of thanking Col. Ralston, Brig. Chisholm and Philip Greey of the Banting Institute for permission to use the drug, for the speed with which they got it for me and for their interest and co-operation.

For more details about penicillin, I would refer readers to the article in the J.A.M.A. of August 28, 1943.

Medical Happenings in January

DATE	TIME	PLACE	OCCASION
Wednesday, 5th	9:00 a.m.	Winnipeg General Hospital	Tumor Clinic
Thursday, 6th	12:30 p.m.	Winnipeg General Hospital	Hospital Luncheon
Friday, 7th	10:00 a.m.	St. Boniface Hospital	Tumor Clinic
Tuesday, 11th	12:30 p.m.	Misericordia Hospital	Hospital Luncheon
Wednesday, 12th	9:00 a.m.	Winnipeg General Hospital	Tumor Clinic
Thursday, 13th	12:30 p.m.	St. Boniface Hospital	Hospital Luncheon
Friday, 14th	10:00 a.m.	St. Boniface Hospital	Tumor Clinic
Tuesday, 18th	12:30 p.m.	Grace Hospital	Hospital Luncheon
Wednesday, 19th	9:00 a.m.	Winnipeg General Hospital	Tumor Clinic
Thursday, 20th	12:30 p.m.	Winnipeg General Hospital	Hospital Luncheon
Friday, 21st	10:00 a.m.	St. Boniface Hospital	Tumor Clinic
Friday, 21st	8:15 p.m.	Medical College	Winnipeg Medical Meeting
Tuesday, 25th	12:30 p.m.	St. Joseph's Hospital	Hospital Luncheon
Wednesday, 26th	9:00 a.m.	Winnipeg General Hospital	Tumor Clinic
Thursday, 27th	12:30 p.m.	Winnipeg General Hospital	Hospital Luncheon
Friday, 28th	10:00 a.m.	St. Boniface Hospital	Tumor Clinic
Friday, 28th	12:30 p.m.	Victoria Hospital	Hospital Luncheon
Friday, 28th	7:30 p.m.	Medical Arts Club	Medical History Section Meeting

Hospital Luncheon Program Reports

Grace Hospital

Clinical Luncheon

Dec. 21, 1943.

Two cases were presented, both of which went to autopsy.

First Case — A young woman of 24 years — a waitress, admitted 10 days before death. Complaints —lethargy, weakness, nausea, vomiting and slight jaundice. The clinical findings were essentially negative, except for the jaundice and the clay colored stools. The laboratory findings showed only an increasing amount of bile in the blood. At autopsy the liver was very small — sections suggested an old hepatitis with an acute condition added. It was thought by some present that the history of occasional alcoholic debauches — probably of a questionable source — caused a toxic hepatitis. The case was presented by Dr. Ruskin (in the absence of Dr. E. W. Munro) and Dr. Bruce Chown.

Second Case—A woman of 53 who had previously suffered several attacks of gallstone colic. She was admitted about seven weeks before death, with what at first was thought to be another attack, but extremely severe, of Gallstone colic. She complained of extreme epigastric abdominal pain and pain in the back, nausea, vomiting and was in a state bordering on collapse with a B.P. of 75/65. Examination revealed a pulmonary oedema and the upper abdomen was rigid. Slight improvement followed in the succeeding few days and the B.P. rose to 124/74. She was seen in consultation by Dr. J. S. McInnes and Gerard Allison. It was at first considered that a coronary block existed but an electrocardiogram was negative. A flat plate of the abdomen was negative. A barium series showed pyloric obstruction, probably due to pressure outside the abdomen. As the severe pain lessened a large mass could be felt in the epigastrium. An X-Ray plate of the chest revealed fluid in the left plural cavity and 20 ozs. of what appeared like bile stained fluid was withdrawn. This, on examination, showed no bile, but was blood stained. Patient became weaker and eventually died. At autopsy the abdomen presented many adhesions and areas of fat necrosis. A large mass, size of a grapefruit, an encapsulated blood clot, whose walls showed inflammatory tissue and pancreatic tissue was present near the head of the pancreas, also a very large gallbladder filled with bile and stones. This case was presented by Drs. Benner, J. S. McInnes and Chown. F.A.B.

Misericordia Hospital

Dec. 14, 1943.

Myasthenia Gravis—Dr. C. M. Strong

Dr. Strong, in his own inimitable way, presented the case of a woman of 35 who had suffered for 5 or 6 years from myasthenia gravis. This disorder, one of the rarest, but one of the most interesting, causes of weakness, is characterised by three outstanding features:

1. The myasthenic phenomenon.
2. The response to quinine.
3. The response to prostigmine.

The myastheniac phenomenon is the very rapid decline in strength in muscles continuously employed. Thus, in eating, the power of the jaw muscles quickly fails. In reading, the voice fades and articulation becomes imperfect and so on. Quinine aggravates the condition greatly and prostigmine as greatly improves it. In a well developed case recognition is easy. The eyes are half closed, the mouth half open. The head falls forward and the weakened muscles of respiration produce dyspnoea and threaten suffocation. The patient in question had been able to carry on by using prostigmine and eserin which together are exceedingly helpful.

Some Aspects of Bronchoscopy—Dr. F. A. Macneil

Dr. Macneil spoke upon the subject of "Drowned Lung." In this condition, so named by Chevalier Jackson, secretions accumulate and produce partial bronchial destruction. Sometimes, because of the foul nature of the secretions, the condition is regarded as an abscess, especially when it follows operations on the mouth or throat. Dr. Macneil discussed the mechanism, clinical picture and treatment, illustrating his remarks with cases and histories. The subject will be presented more fully in a later issue. J.C.H.

St. Boniface Hospital

Subphrenic Abscesses — Dr. A. T. Gowron

Dr. A. T. Gowron presented a case of subphrenic abscesses following perforation of a duodenal ulcer. The perforation occurred 12 hours prior to admission to hospital. He was operated upon immediately, and within the following week showed signs of sepis. A subphrenic abscess was suspected. At operation two abscesses were found, one in the right anterior superior space and the other in the left postero inferior space. Both were drained by the extra peritoneal route and improvement followed.

Subphrenic abscess following perforation of duodenal ulcer occurs usually in the right postero superior, or in the right antero superior space. Usually there is only one abscess, or if there be more all are situated in the same region. Infection of the left postero anterior space occurs in only 3% or so of cases and then is due to rupture of a posterior-wall gastric ulcer. The occurrence of two abscesses in both regions simultaneously is very rare. J.C.H.

St. Joseph's Hospital

Nov. 23, 1943.

Dr. A. L. Shubin presented a case of early Hodgkin's disease in a woman aged 50. This woman has been subject to diabetes mellitus for 15 years. Fever, general weakness, severe pain in the left side of the abdomen 1 month, cervical glands and spleen enlarged 1 month, marked secondary anemia; biopsy of a gland in the neck showed early Hodgkin's disease.

The consensus of opinion of most writers reporting large series of cases in the literature is that Hodgkin's disease should be diagnosed early. Whenever there is a lymphomatous condition with premonitory symptoms of pruritus with or without provocative cutaneous lesions and diarrhea Hodgkin's disease should be considered. The diagnosis can be made with certainty only by histological examination of biopsied tissue. Then surgery and radiation can prolong the patient's life expectancy. A.L.S.

Dr. H. Geller presented a case for Dr. C. Bermack for diagnosis. It is a condition of a blood dyscrasia in a young girl who has been puzzling to many clinicians and the Mayo Clinic for the last six years. The last diagnosis made at the Mayo Clinic is Bantis disease.

For the last year recurring boils complicated the picture, sulfa drugs had no effect on the condition. Penicillin treatment was suggested. A.L.S.

Winnipeg General Hospital

Dec. 2, 1943.

Inguinal Hernia—Dr. M. R. MacCharles

One may view this from the industrial or the national health viewpoint. Treatment of Hernia is surgical and the incidence of recurrence is high. Recurring Hernia should be treated by fascial repairs. "Living" fascial repair gives minimal recurrence. Dr. MacCharles demonstrated a fascial "stripper," a method he has used for some three years.

The following contributed a lively discussion: Drs. J. A. Gunn, O. S. Waugh, D. J. Fraser, Brian Best, M. S. Hollenberg, Dan Nicholson, S. J. Elkin and Hugh Cameron.

Clinical Case of Boy of 15—Dr. O. S.Waugh

Why one should go to an Ophthalmologist rather than an Oculist.

HISTORY: The past year patient had complained of occipital headache in the morning. This pain radiated down the neck and was increased by strain. In addition, there was pain behind the eyes, blurring of vision, ringing in both ears, dizzy spells, falling to the right side and vomiting for one month. He had a starey appearance, the sixth cranial nerve was paralysed, with double vision in both eyes. Pupils dilated but reacted to light; Fundi were both choked; Muscle co-ordination upset on the right side. Dr. Waugh stressed that a Ventriculogram should be done before operation.

OPERATIVE FINDINGS: Haemangioblastoma occupied three-quarters of the fourth ventricle.

Dr. Dan Nicholson commented on the tumour, saying there was a familial tendency and the tumours multiple.

Doctors taking part in the discussion were as follows: W. E. Campbell, J. T. Cruise and T. A. Pincock. D.C.A.

Dec. 16, 1943.

Spontaneous Remission in a Case of Hyperthyroidism Associated with Diabetes—Dr. M. S. Hollenberg

Engineer, aged 44, with the following symptoms: Nocturia, Exophthalmos, the Thyroid was not palpable, blood pressure 120/78, pulse 108, liver palpable, B.M.R. 45, 7 days later 17, 4 days later 7. This man lost 30 lbs. in a period of some six months. He was admitted to hospital on the 1st of November, 1943, with a blood sugar .310. With suitable insulin treatment within three weeks his blood sugar was normal and he had gained 14 lbs. by the 16th of December. Questions as to diabetes or hyperthyroidism.

Doctors contributing to discussion were as follows: Kitchen, Allison, Pincock, Hunter, Thorlakson and Prof. Cameron.

Intestinal Obstruction Due to Richter's Hernia Dr. C. W. Burns

A man of 61 years of age. On November 19th pain commenced; went to a doctor on the 21st, who reduced hernia but which recurred. On 22nd patient had foul vomiting and marked symptoms of intestinal obstruction.

Operative Findings: The terminal portion of the ileum was gangrenous. This gangrenous area was excised and an end to end anastomosis completed. Patient made a good recovery.

Perforated Typhoid Ulcer—Dr. Jack Waugh

A girl of 19, suspected typhoid, sudden pain in the abdomen.

Operative Findings: A small pinhole in the terminal ileum 8 inches from the caecum. Ten inches medially to the perforation was a Meckel's diverticulum. This patient is doing very well.

Statistics: 23 to 40 typhoid cases are reported annually in Manitoba. Of these cases 7% have hemorrhage and 2% have perforation. Of the 2% perforations there is a mortality up to 75%. D.C.A.

Victoria Hospital

Nov. 26, 1943.

Intensive Treatment of Syphilis—Dr. J. L. Wiseman

At the November Clinical luncheon at the Victoria Hospital Dr. J. L. Wiseman delivered a short address on "Some Observations on the Intensive Treatment of Early Syphilis." As a basis for comparison Dr. Wiseman outlined the accepted course of therapy as recommended by the Co-operative Clinical Groups for the treatment of seronegative primary syphilis which extends over a period of 10 months, and the seropositive phase and secondary stage which is carried on for a period of 18 months. In sharp contrast are the methods now being employed in the rapid treatment, particularly that being carried on at Bellevue Hospital, New York, and the Chicago Intensive Treatment Centre.

Mapharsen is the drug used for intensive therapy and although the one-day treatment combined with fever therapy is being used at the Chicago Intensive Centre in a group of cases, the Eagle-Hogan multiple syringe method — 3 injections a week for from 6 to 8 weeks, is the method of choice in most of the larger clinics.

He stressed the importance of this work being as yet in the experimental stage and that its primary object was rapid sterilization in the infectious stage in the mass of cases, and that further work over a protracted period with careful survey of end-results would be essential before the profession at large would be justified in its acceptance for use in civilian practice. A.L.S.

Major C. W. Clark, R.C.A.M.C.,
No. 5 C.G.H.; C.O.A.; C.M.F.,
16th December, 1943.

Dear Dr. Mitchell:

I am writing you as provincial representative of the Canadian Medical. I would appreciate it if you would put my name in to the Canadian Medical Association for membership under the ruling for the armed forces.

We have had a considerable amount of work through the hospital during the Sicilian campaign. In our first fifteen days of operation on the island, we put through over 3,300 cases of which about one-third were surgical. The surgical work constituted largely extremity wounds and fractures. We have been very pleased with the results and the very low mortality amongst the patients reaching hospital. At first we worked under great difficulty with very little equipment (owing to loss in transit) but for the past few months we have had excellent working conditions and adequate supplies.

We have had lately, considerable change in the unit. About twenty of our Sisters have been returned to England and have been replaced. Chuck Walton, Roy Richardson, Carl Henneberg, Les Lansdown, Ben Shoemperlen, are all well. Sammy Boyd and Cherry Bleeks have been transferred back to England.

We are all getting a bit tired of the war, now four years, and will be glad to get back and try and settle down into civilian life again.

Best regards to you all in Winnipeg and we hope to see you again soon.

Cec. Clark.

Winnipeg Medical Society—Notice Board

C. M. Strong—*President*
P. H. McNulty—*Vice-Pres.*

Next Meeting January 21st

W. F. Tisdale—*Secretary*
H. M. Edmison—*Treasurer*

Today's history lesson, ladies and gentlemen, is on Salerno — a town quite unknown to many Canadians a year ago but since then "made rich with the most precious blood in all this world."

Over the centuries the sands of Salerno have drunk much blood of many men of many races, but in the town itself and upon the hills behind it, health and its preservation were the chief concern of its noblest citizens. From the earliest times, certainly in the days of Horace, it was noted for its salubrious climate. Thither, therefore, journeyed the sick in search of health, and thither also journeyed physicians in search of the sick. Supply and demand met and were satisfied in this illustrious city which boasted that all its men were honest and all its women beautiful.

Romans, Greeks, Arabs and Jews found their way to Salerno and men of each race, we are told, combined their talents and founded a University. Present at the birth of this international undertaking was Robert II, a Norman, first to proclaim himself king of the two Sicilies (the kingdom of Naples being the other Sicily). He took an interest in the Medical School and decreed "Whoever will henceforth practice medicine, let him present himself to our officials and judges to be examined by them; but if he presume of his own temerity, let him be imprisoned and all his goods sold by auction. The object of this is to prevent the subjects of our kingdom incurring peril through ignorance of physicians." That is about the earliest of the modern laws of licensure and a good one too.

A century or so later the School was given a charter by Frederic II, King of the two Sicilies and Emperor of that peculiar anomaly the Holy Roman Empire (it was not holy or Roman or an empire). According to this the student had to complete 3 premedical years and 5 professional years before he could "present himself to our officials and judges." Those were the days when the lady professor Trotula was the big noise in gynecology.

Salerno was for a time the hub of the medical world as well as an important spot in the world of politics. I can promise you a very pleasant evening at the Medical History Section meeting on Friday the 28th, when Dr. Ross Mitchell will speak upon Salerno and the Salernese.

Our worthy President has attended all our meetings so far with, he says, pleasure and profit.

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The December Meeting was under the auspices of M.D. 10, Col. Bell having kindly permitted certain of his officers to contribute the programme. Under the circumstances, I suppose it should be "hush-hush" but I think I can safely give you the highlights.

Taking the speakers in reverse order, we had Capt. Musgrove discussing the cause, mechanism, treatment and complications of varicose veins. He used many diagrams so that even a non-surgical person like myself could easily follow his instructions and arguments.

Capt. Stuart told, again with most helpful slides, the ingenious measures used to detect tuberculous lesions that lurk behind bones and might easily evade a less suspicious person than himself. He said that every time he caught one of these cases he saved $10,000.00, but it turns out that the Government gets this money too. Still I think he ought to get a commission!

Preceding Capt. Stuart was Major Downey, who told us that roughly 1% of all medical rejections (for organic disease) were due to pulmonary tuberculosis. Rejections for non-tuberculous pulmonary diseases were about three times as many, and lung disease, altogether, made up almost half the rejections. The tubercle bacilli are certainly personae non gratae with Capt. Stuart and Major Downey who between them keep such a sharp lookout for the little varmints that, on the whole, I think my money would be safer on the camel trying to squeeze through the eye of a needle than on the tubercle bacillus trying to get into the Canadian Army.

Last here, but first on the programme, was Capt. Swartz. He spoke upon the Toxic Effects of Sulphanamide Therapy on the Urinary Tract. The profession has so taken the sulphanamides to its heart that it is distressing to be told how deeply they bite, not the hand that prescribes them, but the kidney that excretes them. They are a dangerous family at times. Least toxic of all, so far as the kidney is concerned, is sulphanilamide, because of its high solubility. The other members are relatively insoluble, especially in their acetylated, inactive form. Crystalisation depends upon the solubility of the drug, its degree of acetylation, the concentration, reaction and temperature of the urine and upon that unpredictable factor — idiosyncracy. There are, according to Capt. Swartz, three clinical phases, (1) moderate pain with microscopic haematuria, (2) more severe pain with gross haematuria, fever, vomiting and tender kidneys, and (3) anuria with rising blood urea. Behind these evidences of toxicity is a damaged kidney, but we get no clue from the patient as to what is going on in the renal tissue. There are two renal pictures. One is of mechanical blocking of the ureter by masses of crystals. The other is of precipitation within the kidney to a degree disproportionately small to the toxicity produced. In this latter form the patient is in great jeopardy.

Prevention was discussed. Estimations of renal function beforehand, recognition of the earliest signs of trouble, prompt action to avert threatened danger — these were the keynotes. Water in abundance by mouth and by vein, alkalies and ureteral catheterisation were the essentials of treatment.

That is the barest of summaries. I hope that we can later on get the paper for publication. Meanwhile, a word of warning is in place. The "sulphas" can be dangerous. The establishment of urinary flow does not end the threat conveyed by anuria. Grave renal and cerebral symptoms may appear as the urinary volume increases for there is severe disturbance of the sodium and chloride concentrations which rise to excessively high levels. In every case where patients are receiving the pyridine, thiazole or diazine derivatives of sulphanilamide careful attention to the urinary tract is sine qua non.

Two tablespoonfuls Navitol Malt Compound contain the equivalent of:

Vitamin A	5000 U.S.P. units
Vitamin D	800 U.S.P. units
Vitamin C	30 milligrams
Thiamine hydrochloride	1 milligram
Riboflavin	2 milligrams
Niacin amide*	10 milligrams
Calcium	750 milligrams (2 gm. tricalcium phosphate)
Iron	106 milligrams (10 gr. iron and ammonium citrates, 10 mg. average assimilable iron)

*Suggested by National Research Council—not official.

For Nutritionally Under-Par Patients

Prescribe

NAVITOL MALT COMPOUND

★ **NAVITOL MALT COMPOUND** provides a palatable, convenient and effective means of preventing or correcting many common vitamin and mineral deficiencies in the diet. The recommended dose for adults—two tablespoonfuls (one fluid ounce or 40 grams)—supplies the full minimum daily adult requirement, or more, in vitamins, calcium and assimilable iron. Suggested dosage for children is one tablespoonful.

INDICATIONS

There are numerous instances where the diet is insufficient to meet the vitamin and mineral requirements of the patient and nutritional supplementation is advisable. There are other instances, where the diet is seemingly adequate in which malnutrition may occur as the result of interference with food intake, increased metabolism, malabsorption, malutilization, hastened destruction and excretion.

Navitol Malt Compound is acceptable to patients old or young. The syrup mixes readily with milk and other aqueous fluids. It is available in 1-lb. and 2-lb. jars.

For literature address 36 Caledonia Rd., Toronto.

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MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Editorial

"The best preparation for the future is the present well seen to."—Geo. MacDonald.

There is much interest and not a little concern in the minds of many doctors regarding the future of medical practice. We have before us bills and revised bills but the final decision has not yet been reached nor can any one say how it may read. Meanwhile, it is proper to scrutinize each fresh proposal, looking particularly at those parts which are not to our advantage; and in our ignorance of what may ultimately be agreed upon it is well to take stock of our ability to withstand the aggressions we may be called upon to resist.

It seems wise, therefore, that we should build up the strength of our Associations; not so that we may be able to dictate to others, but in order that others may not seek to dictate to us. Strong societies, like strong men, are invited to co-operate, and listened to with respect; whereas weak associations, like weak men, are told what they must do.

Some may, with Chapin, find "something thrilling in the thought that we are drifting forward into a splendid mystery," but most of us are earth-bound enough to prefer a more deliberate and conscious progress towards a clearly defined goal and in a compact company rather than in irregular bands. Those who remain aloof from us must realise that by so doing they prejudice their own interests as well as ours. They must have reasons for remaining out of the fold, but what are these reasons? Our columns are open to non-members who are willing to express their views. If their arguments are sound and the fault lies with the Associations, then it is proper that the fault be remedied; but before we can right a wrong we must know where the wrong lies.

"The indifference of the citizens is the opportunity of the enemy," a saying true in peace as well as war. We do not seek to control the health plan, but we do not wish to be completely subservient to lay bodies and this may be our fate if the indifferent ones remain indifferent.

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The Editor is most grateful to all of those who, by word of mouth or by letter, have expressed their approval of his efforts. He hopes that the Review will become increasingly useful and that its readers will gain from it both pleasure and profit. He would remind you that the Review is the gift of the advertisers, whose money makes publication possible. It is only fair that you should read their messages and, when you can, employ their products. One good turn deserves another.

★

Post Graduate Course

For a number of years the Faculty of Medicine have conducted a Post Graduate Course each February. There will be another such course this year planned to meet the special needs of the men in the services. There will however be room for twenty civilians for whom the fee will be $10.00. So far the programme is in the earliest phase of its development. Next month we shall be able to tell you the topics and the speakers. Of the latter two or three will be guests from other centres and most likely the profession as a whole will be given the opportunity of hearing them at a Winnipeg Medical Society meeting — regular or special according to the date.

Penicillin

The discovery of penicillin might have been made decades ago if some one else had had the curiosity of Alexander Fleming. Fleming noticed, in a contaminated plate, that staphylococcus colonies adjacent to the contamination had become transparent and were obviously undergoing lysis. His curiosity aroused, he identified the mold. He found that its antibacterial substance could be completely extracted, that it strongly inhibited the growth of most of the gram-positive cocci some of the gram-negative cocci and some of the gram-positive bacilli.

From that beginning in 1929 we have advanced to a moderate understanding of what promises to become one of the greatest therapeutic weapons of all time. Its destructive effect upon the gonococcus and spirochete have been widely publicised. Cases of subacute bacterial endocarditis have been treated but not with complete success. Osteomyelitis, on the other hand, seems to capitulate quickly and completely. Its failure to cure Dr. McNulty's case can scarcely be held against it for death had already claimed the boy. Its future triumphs, we shall hear about only in the literature until the war is over or production becomes great enough for both civilian and military needs. That is just as well. The period of trial will be passed in establishments under the eye of scientists so that, when it finally comes to us, we shall have a more complete knowledge of its actions, uses and limitations than is usually the case with a new drug.

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Obituary

Dr. Robert Donald Fletcher

Dr. Robert Donald Fletcher died on December 13 at Hollywood-by-the-Sea, Florida, aged 65.

Born in Edinburgh, he came as a child to Winnipeg in 1887, and for fifty years was identified with the life of the city. He obtained his Bachelorship in Arts from Manitoba College in 1899, and a year later his M.A. degree for a thesis on the history of the organ, an instrument in which he was keenly interested, and as a performer more than usually proficient. While a student in medicine he was organist of Holy Trinity Church. He graduated from Manitoba Medical College in 1903, and did post-graduate work at Chicago and Johns Hopkins Universities. He was appointed lecturer in surgery in 1904, and in 1919 became associate professor of surgery. His specialty was the genito-urinary field. He held this post until 1937, when failing health caused his retirement. He was a fellow of the American College of Surgeons and of the Royal College of Physicians and Surgeons of Canada. In 1921 he was president of the Manitoba Medical Association, and was instrumental in establishing the fortnightly clinical luncheons at the Winnipeg General Hospital.

Music played a large part in his life. He was organist at St. Luke's Church in his later years, and gave twilight recitals.

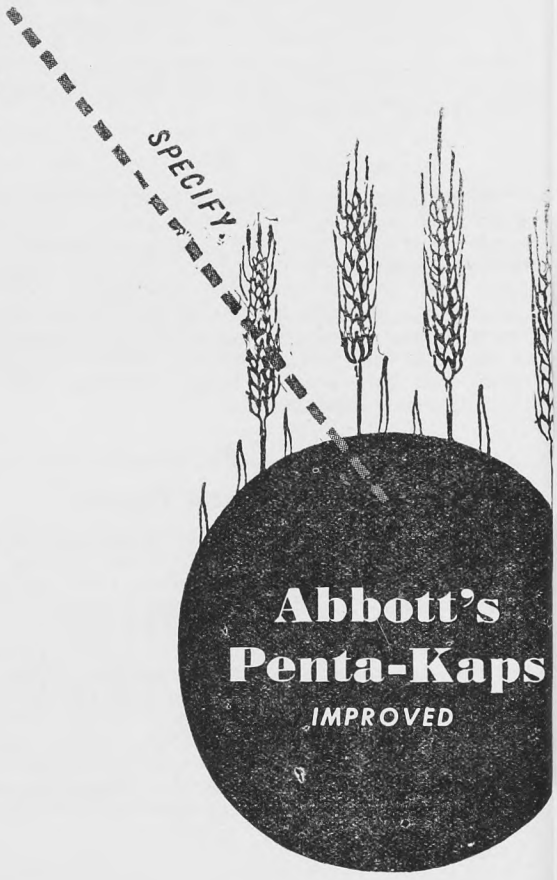
He is survived by his widow and three daughters.

Dr. Fletcher had a gift for organization, and did much to weld the medical profession in Manitoba into a powerful body.

Eighty acres of good land

. . . and STARVATION

Contrary to popular belief, even people living on American farms may suffer from inadequate diets. The physician in rural areas, like his colleague in the cities, is decidedly *not safe* in assuming that his patients are receiving sufficient amounts of all the necessary vitamins. In a majority of cases, of course, in town or country there are no clear-cut clinical symptoms. Studies, show, however, that although the *classical* vitamin deficiency diseases are seldom encountered, *partial* vitamin deficiencies are by no means rare. In such cases, along with correction of the diet, the administration of a vitamin supplement—a *dependable* vitamin supplement—is a rational and timely measure. More and more often, *Abbott's Penta-Kaps* is the brand preferred. Physicians everywhere know that specifying Penta-Kaps on their prescriptions is a simple, certain means of insuring that patients receive all of the vitamin units claimed on the label. Abbott Laboratories, Limited, Montreal.



Personal Notes and Social News

The New Year

The cause of freedom is on the move, the march of the murdering gang has been halted. In the year that is dawning we can look forward to the future with new courage and hope.

In wishing the readers of this page a Very Happy New Year, we do so with a prayer in our hearts:

May Peace and Good Will come to this earth long before the bells of another year ring out; may it be possible for us to gather once again at the Family Hearth, united with our Fathers, Sons and Daughters, who at present are in distant lands fighting the battle for the Four Freedoms.

Lieut.-Col. Ross H. Cooper and Mrs. Cooper announce the birth of a son (John Ross), at the Winnipeg General Hospital on December 5th, 1943.

Capt. Ian S. Maclean, R.C.A.M.C., has been promoted to Major and is now with the 9th Field Ambulance in Italy. His wife and children are guests of his parents, Dr. and Mrs. Neil John Maclean, Middlegate, Winnipeg.

Capt. G. F. Hamilton, R.C.A.M.C., has been promoted to the rank of Major.

Capt. Douglas Oliver Waugh, R.C.A.M.C., son of Dr. and Mrs. Oliver Waugh of Winnipeg, was married on Vancouver Island, November 27th, to Sonia Millicent Everest, only daughter of Mrs. E. G. Catling and the late Mr. A. S. Everest of Metchosin, Vancouver Island.

Capt. G. C. Fairfield, R.C.A.M.C., has recently been promoted to Major.

Capt. and Mrs. G. W. Danzinger, formerly of Winnipeg, are receiving congratulations on the birth of a son (Robert William), at the Dauphin General Hospital, on December 1st, 1943.

Dr. R. E. Davis' eldest son, Cecil W. Davis, is engaged to be married to Margaret Crawford, only daughter of the late Mr. and Mrs. J. S. Crawford. The wedding to take place January 15th, 1943.

Capt. L. Boxer, R.C.A.M.C., has been promoted to the rank of Major.

Dr. and Mrs. A. Blondal, Tuxedo, Man., announce the engagement of their eldest daughter, Doris Marjorie, to Lieutenant George Johnson, R.C.N.V.R., eldest son of Mr. and Mrs. J. G. Johnson of Winnipeg. The wedding to take place December 31st in King's Chapel, King's College, Halifax.

Pte. Helen Stutt, C.W.A.C. (4th Year M.M.C.), was recently married to Capt. Irvin Bean, R.C.A.M.C. Capt. and Mrs. Bean will reside in Regina, Sask.

Dr. F. W. Jackson has been appointed chairman of a Royal Commission to investigate complaints by Japanese living in interior British Columbia, that provisions already made for their welfare are not as generous as they have the right to expect under established international practice.

Capt. Otto O. Schmidt, R.C.A.M.C., has been transferred from No. 10 Company, Winnipeg, to No. 13 Company, Edmonton. He will take a special course in pathology and bacteriology at the University of Alberta.

From Sicily comes the news that Capt. Geo. H. Evoy has been wounded, not, however, by the enemy but by Major Clark. The inference is that he is being prepared for secret service in Palestine and was making sure that he would pass for a native.

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University of Minnesota

Center for Continuation Study

Continuation Course in Otolaryngology

February 7-11, 1944

Center for Continuation Study announces a continuation course in otolaryngology for physicians who limit their practice to ophthalmology and otolaryngology. It will be given February 7-11, 1944. Registration limited to 50 physicians. The faculty will include:

Oscar V. Battson, Instructor in Laryngology, University of Pennsylvania, School of Medicine, Professor of Anatomy, Graduate School, University of Pennsylvania.

Paul H. Holinger, Associate in Bronchoscopy, Department of Otolaryngology, University of Illinois, College of Medicine.

John R. Lindsay, Associate Professor of Otolaryngology, Head, Division of Otolaryngology, University of Chicago Clinics.

Theodore E. Walsh, Professor of Otolaryngology, Washington University, School of Medicine.

Lawrence R. Boies, Professor of Otolaryngology, University of Minnesota, Medical School.

Associates in the Medical School and the Graduate School.

★ ★ ★

Tuition is $25.00, payable $3.00 in advance and the balance on the first morning of the course. Because the rooms of the Center for Continuation Study are occupied by military units the course will be given in one of the leading downtown hotels in Minneapolis, and at the University of Minnesota Hospitals. Early registration is desirable in order that advanced hotel reservations may be made. Upon receipt of $3.00 the enrollee will be notified to communicate at once with the hotel in order to secure space. Further information may be obtained at the Center for Continuation Study, University of Minnesota, Minneapolis 14, Minnesota.

Physicians on duty with the military forces are admitted without payment of tuition or registration fees.

Association Page

The bachelor 'e fights for one
As joyful as can be
But the married man don't call it fun,
Because 'e fights for three.
For 'Im an 'Er an It
An two an one make three
'E wants to finish 'is little bit,
An 'e wants to go 'ome to 'is tea!
Kipling (Reservist of the Line).

The medical boys in the services are anxious to get back to civilian life. Those men who had an established practice are wondering when they sit down at the once familiar desk, will the Jones', Smiths and Browns remember Dr. Blank is home ready to assume their medical care. Those men who never have had a practice, who went directly to the services, what are they going to do on return to civil life? The Government will offer post-graduate courses, but many men will enter practice as soon as an opportunity is offered.

Section No. 35 of the proposed N.C.H.I. bill has in mind the re-establishment of all doctors, nurses, dentists, etc.

The Canadian Medical Procurement and Assignment Board has acted as liaison committee between the services and the profession during war time. There does not seem to be any serious objection to the Procurement and Assignment Board in the assisting and placing of medical men during demobilization. The Board knows best where acute medical shortage exists. It would seem reasonable their counsel could be of great value in placing medical men on return to civilian life. The Divisional Advisory Committee of the Canadian Medical Procurement and Assignment Board are already studying post-war rehabilitation of men in the armed services.

National Contributory Health Insurance

The average age of the practicing physician in Manitoba is over 50. The medical men in the services have rightly questioned whether seniors in civilian life should decide the question of Health Insurance. Organized medicine, and that means 86% of the profession in the province in 1943, have not been mindful of this fact. One of the major difficulties to date amongst the profession has been the lack of agreement upon certain fundamental issues. One of your executive attended a C. M. A. Executive Meeting in Ottawa on the 14th inst., where a representative of the R. C. A. M. C. overseas sat in. This meeting was all to the good. The overseas representative gave the views of those in the services, while the former realized the complexity of a Health Insurance plan involving nine provinces and two languages.

Committee of Twelve

Who are they? To refresh your memory — three members are elected from the Medical Faculty, three from the College of Physicians and Surgeons, three from the Winnipeg Medical Society and three from the Manitoba Medical Association. This year the Chairman of the Committee of Twelve is Dr. C. R. Rice, who also is Chairman of the Legislative Committee of the M. M. A. Amongst other duties, this Committee seeks legislative action to control the following:

(a) to assist in the advance of medical education for the good of the public;

(b) to elevate the standard of medical and nursing education.

D. C. A.

In a recent newspaper, the statement was made that it was almost certain that a new Federal Health Insurance bill would be introduced at the coming session of parliament. The present intention is to press this bill through parliament and to launch the measure before the New Year is out. Such legislation must of necessity change the concepts of medical practice. Should the profession be unduly disturbed at the introduction of the proposed act? Changes are inevitable in life. While the good old days were good for the times, may we not hope that with the improved social order a better system of medicine can be evolved? The profession has a long and honorable heritage. Let us, as a great prime minister has said, "Move steadily into and through the storm."

To each and every member of the profession your Executive wishes a Very Happy New Year.

D.C.A.

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Canadian National Committee on Refugees

Dear Sir or Madam:

We enclose copies of the National Petition on the admission of Refugees to Canada, for signature by the members of your organization.

In inviting you to take part in this national appeal, we would ask you to consider earnestly these facts:

Human life can be saved by the wider opening of Canada's doors.

Canada, which can afford it better than most countries, has done less than most countries.

Canada needs a reputation in the eyes of the world for such hospitality to the suffering, and she has not yet earned it.

Canada's official policy in this matter can be modified by the pressure of public opinion through this petition.

This is the one direct, democratic and hopeful line of action open to us. We are free citizens of a great and rich country. What is our freedom and our good fortune for, if not to enable us to act strongly in the cause of justice and mercy?

Our human and Christian duty is clear. More copies of this Petition are available. Success to your efforts!

Yours, in this human cause.

Canadian National Committee on Refugees,
Winnipeg Branch.

Department of Health and Public Welfare

Comparisons Communicable Diseases—Manitoba

(Whites Only)

DISEASES	1943 Nov. 7 to Dec. 4	1943 Oct. 10 to Nov. 6	1942 Nov. 5 to Dec. 2	1942 Oct. 8 to Nov. 4	TOTALS Jan. 1 to Dec. 4,'43	TOTALS Jan. 1 to Dec. 2,'42
Anterior Poliomyelitis	3	2	4	12	38	65
Chickenpox	317	196	266	270	1692	2117
Diphtheria	31	11	30	36	250	238
Diphtheria Carriers	13	3	7	14	35	37
Dysentery—Amoebic	----	----	----	----	7	----
Dysentery—Bacillary	----	2	3	3	17	14
Erysipelas	9	3	9	3	67	89
Encephalitis	1	1	1	4	10	39
Influenza	35	6	19	4	432	220
Measles	50	79	17	16	2763	4362
Measles—German	----	----	----	----	171	263
Meningococcal Meningitis	3	4	1	1	34	24
Mumps	156	115	137	59	3487	2926
Ophthalmia Neonatorum	----	----	----	----	----	1
Pneumonia—Lobar	6	3	9	3	151	102
Puerperal Fever	----	1	----	----	3	2
Scarlet Fever	153	147	70	53	1398	1234
Septic Sore Throat	2	1	1	----	42	61
Smallpox	----	----	----	----	----	----
Tetanus	----	1	----	----	2	3
Trachoma	----	----	----	----	3	5
Tuberculosis	27	53	58	38	564	540
Typhoid Fever	----	1	2	4	22	33
Typhoid Paratyphoid	----	----	----	1	3	3
Typhoid Carriers	----	----	2	----	2	3
Undulant Fever	----	1	1	1	8	12
Whooping Cough	72	90	128	94	1773	582
Gonorrhoea	137	134	113	118	1709	1357
Syphilis	67	60	56	74	543	696
Actinomycosis	----	----	----	----	1	----
Meningococcal Meningitis Carriers	----	----	----	----	1	----

Scarlet Fever shows an increase at the present time, especially in the City of Winnipeg. Luckily it is of a mild type.

Influenza (although poorly reported) has been epidemic all across Canada and apparently is even pandemic. It is causing the usual number of complications.

Gonorrhoea and Syphilis are not decreasing as they should. Report every case and get it on treatment to kill the infection. Inquire for sources and contacts and get them examined. These methods can and will lower the attack rates.

DEATHS FROM COMMUNICABLE DISEASE

October, 1943

URBAN — Cancer 65, Pneumonia (other forms) 10, Tuberculosis 8, Syphilis 4, Lethargic encephalitis 2, Whooping Cough 2, Hodgkin's Disease 2, Septic sore throat 2, Pneumonia Lobar 1, Cerebrospinal meningitis 1, Septicemia 1, Skin disease 1. Other deaths under 1 year 27. Other deaths over 1 year 168. Stillbirths 14. Total 308.

RURAL — Cancer 25, Tuberculosis 15, Pneumonia Lobar 4, Pneumonia (other forms) 3, Whooping Cough 3, Syphilis 2, Diphtheria 1, Influenza 1, Lethargic encephalitis 1, Scarlet fever 1, Tetanus 1. Other deaths under 1 year 18. Other deaths over 1 year 124. Stillbirths 8. Total 207.

INDIANS — Tuberculosis 6, Measles 4, Pneumonia (other forms) 3, Influenza 2. Other deaths under 1 year 3. Other deaths over 1 year 4. Stillbirths 0. Total 22.

DISEASE	*737,935 Manitoba Nov. 7-Dec. 4	*3,824,734 Ontario Nov. 7-Dec. 4	*905,974 Saskatchewan Nov. 7-Dec. 4	*2,792,300 Minnesota Nov. 7-Dec. 4	*641,933 North Dakota Nov. 7-Dec. 4
Anterior Poliomyelitis	3	2	3	2	6
Meningococcal Meningitis	3	6	----	16	1
Chickenpox	317	2110	381	----	----
Diphtheria	31	8	9	51	13
Erysipelas	9	5	3	----	1
Influenza	35	412	----	543	34
Leth. Enceph.	1	----	----	1	----
Measles	50	738	7	2100	845
German Measles	----	48	3	----	----
Mumps	156	521	7	----	8
Ophthal. Neonat.	----	----	----	----	----
Puerperal Fever	----	1	----	----	----
Scarlet Fever	153	494	75	270	37
Septic Sore Throat	2	16	----	----	1
Small Pox	----	----	----	----	----
Trachoma	----	----	----	----	1
Tuberculosis	27	220	87	6	68
Typhoid Fever	----	3	1	----	1
Typh. Para-Typhoid	----	----	----	----	----
Undulant Fever	----	9	----	10	1
Whooping Cough	72	628	56	205	32
Tularemia	----	1	----	----	----
Gonorrhoea	137	616	----	----	22
Syphilis	67	566	----	----	34
Diphtheria Carriers	13	----	----	----	----
Dysentry—Amoebic	----	2	----	6	----

*Approximate population.

Department of Health and Public Welfare

Sanitary Inspection of Schools

Dr. Clingan has requested me to speak to you this year on the sanitary inspection of schools—it is a timely subject and one, I believe, worthy of the brief period of your time which I am going to take.

Sanitary inspection of schools is an important part of the larger field of environmental sanitation in preventive medical practice and may be conveniently discussed under the following headings:

1. The importance of sanitary inspection of schools.
2. The school building, under which we would include such things as (a) Location and construction (walls, ceiling and floor); (b) Furniture; (c) Blackboards; (d) Lighting; (e) Heating; (f) Ventilation.
3. Water supply and drinking facilities.
4. Lavatory facilities.
5. The school playground — equipment, school lunches, etc.

Consider for a moment the first of these headings —"The importance of the sanitary inspection of schools." The primary function of the school is the education of the child. In the first instance this consisted of teaching, reading, writing and arithmetic. Of late years the ordinary school curriculum has broadened greatly and now includes besides the three basic subjects, teaching of languages, various sciences, history, etc., and last but not least, health. We all agree on the importance of educating the public generally on matters pertaining to their health. Teaching the child not only gives him or her the proper direction along these specific lines but indirectly also teaches the adult population through the knowledge the child carries home to his or her parents. Educationists agree that the easiest method of teaching is by example—then shouldn't the environment of the school act as an example to the child of modern sanitary principles? Children spend a major part of their time in school and irrespective of what home conditions are like, the example seen at school will have a profound effect in firmly establishing in the child's mind what proper sanitary conditions should be—hence the importance of school sanitation.

Most of my remarks will pertain to the inspection of the country school, which unfortunately does not have available such modern facilities conducive to good sanitation as electricity, running water and modern heating equipment. Conditions in the city schools could be improved, however, and they too would profit as much as their country cousins from systematic inspection and re-inspection.

The school building should be of sound construction and kept in good repair at all times—this includes painting as general appearance is not unimportant. It is estimated that each student should have 15 square feet of floor space and at least 200 cubic feet of air space. Ceilings should be not less than 12 feet high and the windows should run as high up as sound construction will permit. The window space should be not less than 1/5 of the floor space and quite often it is found that this area is still inadequate to give sufficient Foot Candle Power for good vision on the side of the room furthest from the windows. Windows should be equipped with proper shades, preferably hung from the middle of the window—this to prevent glare and still allows for the maximum admission of light. In order of choice windows should be located in the south, east and west walls. In any event the wall on which a blackboard is located must not have windows. The child should face so light will be admitted from the back or the back and left hand side.

The walls and ceiling of the room should be decorated in light colors, to increase reflection of light, with a dull or semi-glossy finish to prevent glare. They should be re-done or cleansed frequently enough not only to give the maximum of light but also for appearance sake. Floors should be of wood or other durable materials, free from cracks, splinters, loose boards or projections. They are better kept unoiled, swept daily, using a suitable sweeping compound or damp sawdust, after the completion of the school exercises. Floors should be thoroughly and frequently scrubbed, not just before commencement of each term as is so very often the case.

Cloakrooms should be provided of sufficient size to allow ample room for hanging of coats, hats, etc., particularly in the winter time when quite frequently they need a certain amount of drying. These rooms should be well lighted, heated and ventilated and, in rural areas, provided with suitable cupboard or locker space for the storage of the pupils' lunches.

The general care and cleaning of the school building should not be entirely the responsibility of the teacher and adequate provision should be made in the school budget to pay for this service. In the smaller school units the teacher, with the aid of pupils, may necessarily have to do the daily sweeping, dusting, etc., but in too many instances this is all that is done from term to term, with only a thorough cleansing at these times. This is not adequate. Do not forget too that often the teacher is not conversant with even minimum sanitary requirements and will need direction, encouragement and support from the Health Officer.

The first eight feet across the front of the classroom should be left vacant except for the teacher's desk. This is preferably located next to the windows.

*Paper given by Dr. C. E. Mather at the Medical Health Officers Association meeting held on September 20, 1943. (Published in the *Manitoba Medical Review* with the permission of the Manitoba Health Officers' Assciation).

The students' desks and seats should be individual and adjustable. They should be so fitted as to give the student a proper and comfortable posture. Many schools, of course, are already equipped with unadjustable seats and desks of varying size. A definite attempt should be made to fit the student to the desk, giving due consideration to his or her sight and hearing. When such seats are discarded they should be replaced with an approved adjustable type.

The walls to the front and right of the pupils should be broken as little as possible and furnished with blackboards 3 feet 6 inches to 4 feet in width, the lower edge to be 2 feet 10 inches from the floor at the front of the room and 2 feet 4 inches at the side. Blackboards should be kept in good repair, regularly cleaned, washed, treated or re-surfaced, and shall be of a black mat surface.

In regard to lighting of classrooms, certain requirements as to window area have already been mentioned. As you all know variations in weather conditions are great in our province and frequently, even when the window-floor ratio meets the standards, natural lighting will still be inadequate. Where electricity is available this difficulty is easily overcome by the installation of a suitable number of electric lights in sufficient power, with approved shades, to augment natural lighting. The desired illumination to each desk top and blackboard is not less than 25 Foot Candle Power, as measured by a standard Foot Candle Power meter. Unfortunately most rural schools do not have electricity available and recourse has to be made to the coal-oil or gasoline lamp. Such lamps of modern design will give the required illumination, however, and the importance of proper lighting to sight conservation more than justifies the inconvenience of their management and the additional expense to the school board.

Heating of the country school is always a problem. Some schools are fortunate enough to have a basement in which case a furnace can be readily installed to meet the heating requirements. Where a stove must be employed it should preferably be of the jacketed type—otherwise it should be provided with a double sheet metal shield around the entire heating surface to a height of not less than four feet from the floor in order to protect pupils in the immediate vicinity from high temperature. Jacketed heaters or stoves should be provided with a suitable fresh air duct or flue connected to or under the heater and terminating outside the building. The temperature of the classroom should be raised to 70° Fahrenheit before the children enter in the morning and evenly maintained between 68° and 70° Fahrenheit throughout the day. A thermometer is necessary for proper control. The room must be free from draft or chilling effect and an attempt made to maintain the proper humidity.

Ventilation can of course be most satisfactorily controlled by a mechanical system but in the majority of rural schools natural methods will of necessity have to be employed. Here it will become the duty of the teacher to see that windows and other openings are arranged to provide the greatest distribution of air possible.

Windows may be equipped with suitable deflectors, preferably of glass, not less than twelve inches high, placed on the sills and extending the full width of the windows.

All schools should be provided with an adequate water supply of sanitary quality for drinking and ablution, flushing and cleaning purposes, from a municipal service, well or other approved source. The well, where possible, should be located on the school site. The location, construction and protection should be to prevent contamination. Casings shall be of water-tight material, carried to a height of not less than ten inches above ground level. The top shall be of concrete, properly sloped and drained so as to carry off waste water, and a pump of the one piece base type should be securely affixed to this top by means of bolts and a gasket so as to be perfectly water-tight. The school well should be a shining example of proper sanitary construction. Where water is not available at the site a properly constructed, concrete cistern may be provided, fitted with a pump, and filled periodically from an approved source. The only satisfactory method of providing drinking facilities, to me, is the installation of an approved drinking fountain of the side jet side. Gravity fountains of this type are available for schools not serviced by water under pressure. The common drinking cup should of course be prohibited and as a rule, provision of individual cups by the students is not satisfactory.

A sufficient number of wash basins suitable for the number of pupils, together with soap and individual towels must be available. You have all witnessed the deplorable washing facilities found in many schools and can hardly blame little Johnnie for returning home pretty dirty at 4 p.m. In many cases the school is the only place where the child has an opportunity to learn about personal cleanliness — the old adage "Cleanliness is next to Godliness" surely should have the enthusiastic support of the teacher, school board and health officer.

Much has been written, some even in poetry, about the weather beaten house on the back of the lot. I haveoften wondered if perhaps some of these men of letters didn't desive inspiration for their masterpieces while attending school in Rural Manitoba. These same small houses must be quite a revelation to the business eye of those many commercial firms manufacturing laxatives, oils and divers concoctions for relief of constipation — also to the firm which manufactures that "little liver pill" to take care of that part of digestion carried on "below the belt." The lethargy on the part of the average health officer to improve these necessary facilities for little Johnnie and Mary while attending school for eight to ten hours, five days each week, would almost lead one to suspect we were shareholders. I need not go into detail — suffice it to say that there is urgent need for improvement and continuous supervision of toilet facilities in our schools.

Now I have occupied a considerable period of time and told you nothing you already don't know. I could continue to talk further about caretaker services, playground and playground equipment, the desirability of a hot noon lunch, etc., but that is not the purpose of this paper. When your President requested me to prepare a paper on this subject I believe he recognized the need for improvements in School Sanitation and just desired to have your interest awakened in this regard. If it has some success in doing this our time has not been wasted. Results from your efforts in dealing with local school boards will be disappointing — frequently they too will need considerable educating. Repeated re-inspection of your schools, not just once yearly, along with persistent agitation for reforms will bring about improvements.